

The stone had already been disturbed with a crow-bar, before Brannar picked it up. It seems to me that the absence of all signs of poisoning may be due to the snake having struck at the crow-bar and emptied its poison sacs, before Brannar lifted the stone.

BRITISH MILITARY HOSPITAL,
NASIRABAD,
October 9, 1927.

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Lt.-Col., R.A.M.C.

[The snake that bit Fslr. Brannar has since been sent to us and identified as the Phoorsa (*Echis carinata*). We append a note on the subject of Indian snake venoms by Lt.-Col. F. P. Mackie, I.M.S., Director of the Haffkine Institute, Bombay, which is of great interest. He writes:—

‘The mortality from snake bite in India is due in the large majority of cases to one of four species. The cobra and the krait which are known as colubrine snakes, and the Russell’s viper and the *Echis* (or phoorsa) which are viperine.

The poison of colubrine snakes affects chiefly the nervous system and produces paralysis of various muscles, staggering gait or incoordination of speech followed by respiratory paralysis, convulsions and death by respiratory failure. The symptoms of viperine poison are severe and persistent pain at the position of the bite and oozing of blood from the punctures. Death may take place from paralysis of the heart or from clotting of blood in the vessels if the dose is large or is injected into a vein but if life is prolonged hæmorrhages take place from the mouth, nose or intestines or in various part of the body. Mortification and gangrene occur at the site of the fang marks and the finger or hand may be lost in this way even after the general symptoms have passed off.

The minimum fatal dose of cobra venom is about 15 milligrams (about 1/5th grain) and the snake gives from 5–10 lethal doses at one bite. The krait can deliver five times the lethal dose and the Russell’s viper and *Echis* about twice the lethal dose at one bite. The *Echis* however rarely gives a sufficient dose to kill an adult man.

Death from a cobra bite has occurred in as short a time as 20 minutes, but may be delayed as long as 30 hours.

The antivenine produced at Kasauli is made from the venoms of cobras and Russell’s vipers which are collected at the Haffkine Institute and as these poisons are absolutely specific in their action the antivenine is quite useless against the bites of kraits and phoorsas.

Antivenine should always be given into the veins and not under the skin and if given in the following doses will be instrumental in saving many lives especially if given within a short time of the bite:—

Russell’s viper bites	80–160 cc. of antivenine
Cobra bites	100–400 cc. „ „

(Acton & Knowles)

Permanganate of potash has little or no effect if rubbed into the bite but generally increases the amount of necrosis and tissue destruction.’ EDS.]